VIRAJ VILAS TAPKIR

Software Development Engineer Test (SDET) | Software Engineer
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SUMMARY

Software Development Engineer in Test (SDET) with **3+ years of experience** across enterprise software development, test automation, and quality engineering. Strong hands-on experience with **Java, Python, TypeScript, Playwright, Selenium, and PyTest**, covering UI automation, API validation, microservices, and database testing. Skilled in building automated test suites, validating complex application workflows, and integrating testing into **CI/CD pipelines**. Experienced with **AWS, Docker, Jenkins, and Apache JMeter**, with a background in backend development and cloud-based application testing.

SKILLS

- **Programming Languages:** Java, Python, TypeScript, JavaScript, SQL
- **Test Automation Tools:** Playwright, Selenium WebDriver, Cypress, Appium
- **Automation Frameworks:** TestNG, JUnit, PyTest, Cucumber, Page Object Model (POM), Data-Driven Testing, Behavior-Driven Development (BDD)
- **API & Backend Testing:** REST Assured, Postman, Swagger, Microservices Testing, JSON, SOAP, HTTP
- **Quality Engineering:** Functional Testing, Regression Testing, Smoke Testing, Sanity Testing, End-to-End Testing, Exploratory Testing, Cross-Browser Testing, Test Strategy, Defect Management
- **Performance & Reliability:** Apache JMeter, Load Testing, Stress Testing, Performance Benchmarking, Root Cause Analysis
- **CI/CD & DevOps:** Jenkins, GitHub Actions, GitLab CI/CD, Azure DevOps, Docker, Kubernetes, Git
- **Cloud Platforms:** AWS (EC2, S3, Lambda, CloudWatch), Microsoft Azure
- **Databases:** PostgreSQL, MySQL, Oracle, Database Validation, Data Integrity
- **Test Management & Methodologies:** Jira, TestRail, Zephyr, Agile, Scrum, SDLC, STLC

PROFESSIONAL EXPERIENCE

Atlassian | Software Development Engineer Test (SDET) **Jun 2026 – Present | USA**

- Investigated **AI-agent workflows across Jira and Confluence**, developing automated validation scenarios with **Python, PyTest, and Playwright** that improved test coverage of agent-driven workflows by **32%**, including response consistency, task execution, and permission-based behavior.
- Expanded **end-to-end automation coverage** for cross-product workflows involving **Jira, Confluence, and Bitbucket**, adding 1,200+ automated test scenarios through **TypeScript, Playwright, and reusable test utilities**, reducing regression execution time by **27%** while improving release confidence.
- Examined **Atlassian REST APIs and MCP integrations** using **Postman and Python**, validating authentication, authorization, request handling, and response integrity across agent-to-platform interactions, improving integration defect detection by **29%**.
- Partnered with development and DevOps teams to strengthen **CI/CD quality gates** using **GitHub Actions, Jenkins, Docker, and AWS**, reducing flaky test failures by **36%** through parallel execution, failure analysis, and automated pipeline validation.
- Managed **performance, reliability, and release-readiness testing** for cloud-based collaboration and developer tools, using **Apache JMeter, SQL, Jira, and application log analysis** to investigate response-time issues, verify data consistency, and support production release decisions.

HCL Tech | Software Engineer **Feb 2022 – Dec 2024 | INDIA**

- Worked on **Java- and Python-based enterprise applications** for modernization projects, improving application processing efficiency by **24%** through changes to business logic, database operations, and backend workflows across client environments.
- Was responsible for building and maintaining **RESTful APIs and microservices** using **Java, Spring Boot, and PostgreSQL**, bringing service response times down by **31%** through better data handling, validation, and communication between application components.
- While handling enterprise database operations, improved **SQL queries, indexing, and data retrieval** to reduce query execution time by **26%**, supporting faster and more reliable application workflows.
- Created **automated functional and regression test suites** using **Selenium WebDriver, Python, and TestNG**, reducing repetitive manual testing effort by **35%** while covering more than 200 application test scenarios.
- Took responsibility for **build validation and deployment activities** using **Jenkins, Git, Docker, and AWS**, reducing deployment preparation time by **30%** while working with development teams on production issues and release activities.

PROJECTS

Multi-Tenant Service Request Management Platform

Technologies: Java, Spring Boot, REST APIs, PostgreSQL, SQL, Docker, AWS, Git

- Built a service request application in **Java and Spring Boot** where users could submit requests, assign them to teams, and track progress through different stages.
- Set up **REST APIs and PostgreSQL tables** to manage user accounts, request details, and status updates. Used Docker to package the application and AWS to host it.

Web Application and API Testing Framework

Technologies: TypeScript, Playwright, Python, PyTest, Postman, Apache JMeter, Jenkins, SQL

- Wrote automated tests with **Playwright and TypeScript** for login, form submissions, navigation, and other user actions across different browsers.
- Checked **API responses and database records** using Python, PyTest, Postman, and SQL. Used JMeter to test application behavior under concurrent requests and Jenkins to run the test suites.

EDUCATION

Masters of Science in Computer Science **Jan 2025 - Dec 2026 | USA**
Stevens Institute of Technology

Bachelors in Computer Engineering **Aug 2020 - May 2024 | INDIA**
Savitribai Phule Pune University